

CLAIMS

What is claimed is:

1. A call segment controller comprising:
an instruction set including an initial call directing instruction;
a call information interface for accepting call information associated with a call;
a call control information interface for providing call control information, wherein said call control information interface provides call control information for directing said call to said first call application as a function of said initial call directing instruction and said call information accepted by said call information interface; and
an application interface for exchanging call information with a first call application, wherein said application interface provides call information associated with said call to said first call application upon directing said call to said first application, and wherein said first call application provides call information associated with said call upon a particular call event associated with said call.
2. The call segment controller of claim 1, wherein said initial call directing instruction comprises a dial-to number associated with a particular dialed number, and wherein said call information accepted by said call information interface comprises dialed number information.
3. The call segment controller of claim 1, wherein said initial call directing instruction comprises a dial-to number associated with a caller, and wherein said call information accepted by said call information interface comprises caller information.
4. The call segment controller of claim 3, wherein said caller information comprises automatic number information.
5. The call segment controller of claim 1, wherein said call information interface and said call control information interface are comprised of an application independent link.
6. The call segment controller of claim 5, wherein said application independent link comprises an Ethernet interface.

7. The call segment controller of claim 5, wherein said application independent link comprises an Internet link.

8. The call segment controller of claim 1, wherein said call information interface and said call control information interface are comprised of a signaling independent link.

9. The call segment controller of claim 8, wherein said signaling independent link comprises an Ethernet interface.

10. The call segment controller of claim 5, wherein said signaling independent link comprises an Internet link.

11. The call segment controller of claim 1, wherein said first call application provides enhanced calling services to said call.

12. The call segment controller of claim 1, wherein said first call application comprises a voice response unit.

13. The call segment controller of claim 1, wherein said first call application comprises a prepaid calling system.

14. The call segment controller of claim 1, wherein said call information provided to said call segment controller by said first call application comprises further call instructions with respect to said call.

15. The call segment controller of claim 14, wherein said further call instructions are utilized by said call segment controller to provide call control information to said call control information interface for directing said call to a second call application.

16. The call segment controller of claim 15, wherein said call segment controller is provided information with respect to a state of said call from each of said first call application and said second call application via said application interface.

17. The call segment controller of claim 1, wherein said call information provided to said first call application by said call segment controller comprises call reference information.

18. The call segment controller of claim 17, wherein said call information provided to said call segment controller by said first call application comprises said call reference information.

19. The call segment controller of claim 1, wherein said application interface comprises a database shared between said call segment controller and said application.

20. The call segment controller of claim 1, wherein said call information and said call control information do not include voice information, and wherein no voice link is established with respect to said call and said call segment controller.

21. The call segment controller of claim 1, wherein said particular call event comprises termination of interaction of said call with said first application.

22. The call segment controller of claim 21, wherein said termination of interaction comprises said call being released from communication with said first application.

23. A system for providing segmented call control, said system comprising:
a call segment controller having a call interface for interacting with a call and an application interface for interacting with an application, wherein said call interface provides a bi-directional signaling link with respect to said call without a voice link with respect to said call; and

a plurality of call applications, wherein said application interface provides call information exchange between said plurality of applications and said call segment controller, wherein said call segment controller interacts with call applications of said plurality of call applications through use of said call information exchange to control segments of said call.

24. The system of claim 23, further comprising:

a communications server having a network interface and an application independent interface, wherein said communications server is coupled to said call segment controller via a link between said application independent interface and said call interface, wherein said call is coupled to said communications server via said network interface, and wherein call information without voice information is provided to said call segment controller via said call interface by said communications server.

25. The system of claim 24, wherein said application independent interface comprises an Ethernet interface.

26. The system of claim 24, wherein said application independent interface comprises an Internet interface.

27. The system of claim 24, wherein said network interface comprises an interface selected from the group consisting of V.35, T1, E1, and ISDN.

28. The system of claim 24, wherein said communications server comprises a SS7 server.

29. The system of claim 23, wherein said call segment controller comprises an initial call directing instruction, wherein said initial call directing instruction operates with call information with respect to said call provided to said call segment controller via said call interface in determining call control information for providing directing of said call to a first application of said plurality of applications via said call interface.

30. The system of claim 29, wherein said call information comprises information associated with a caller originating said call.

31. The system of claim 30, wherein said information associated with said caller comprises automatic number identification information.

32. The system of claim 30, wherein said information associated with said caller comprises dialed number information.

33. The system of claim 29, wherein said first application is an application of said plurality of applications for obtaining information associated with said call, wherein said information associated with said call obtained by said first application is communicated to said call segment controller via said application interface.

34. The system of claim 33, wherein said first application has associated therewith a resource selected from the group consisting of:

- a called party information database;
- a calling party information database;
- call tariff database; and
- a call data record database.

35. The system of claim 33, wherein said first application comprises a voice response unit to solicit said information associated with said call from said caller.

36. The system of claim 35, wherein said information associated with said call comprises an enhanced calling service desired by said caller.

37. The system of claim 36, wherein said enhanced calling service comprises a prepaid calling service.

38. The system of claim 36, wherein said enhanced calling service comprises a post-paid calling service.

39. The system of claim 36, wherein said enhanced calling service comprises a voice mail system.

40. The system of claim 36, wherein said enhanced calling service comprises a call messaging system.

41. The system of claim 36, wherein said enhanced calling service comprises a one number call routing system.

42. The system of claim 36, wherein said enhanced calling service comprises a call forwarding system.

43. The system of claim 35, wherein said information associated with said call comprises unique identifying information associated with said caller.

44. The system of claim 35, wherein said information associated with said call comprises a number to which said caller wishes to be connected.

45. The system of claim 33, wherein said information associated with said call is utilized by said call segment controller in directing said call to a second application of said plurality of applications.

46. The system of claim 45, wherein said first application and said second application are not configured for direct interoperability.

47. The system of claim 45, wherein said first application and said second application are provided by separate vendors.

48. The system of claim 45, wherein said second application performs at least a portion of an enhanced calling service desired by said caller.

49. The system of claim 45, wherein said second application provides call information to said call segment controller via said application interface.

50. The system of claim 45, wherein said second application has associated therewith a resource selected from the group consisting of:

- a called party information database;
- a calling party information database;
- call tariff database; and
- a call data record database.

51. The system of claim 23, wherein said call information said call segment controller is provided, via said application interface, comprises information with respect to a state of said call from each application of said plurality of applications said call is directed to by said call segment controller.

52. The system of claim 23, wherein said call information applications of said plurality of applications are provided, via said application interface, comprises call reference information.

53. The system of claim 52, wherein said call information said call segment controller is provided, via said application interface, by applications of said plurality of applications comprises said call reference information.

54. The system of claim 23, wherein said application interface comprises a database shared between said call segment controller and at least one application of said plurality of applications.

55. The system of claim 54, wherein said at least one application comprises two or more applications of said plurality of applications.

56. The system of claim 23, wherein said call segment controller controls calls based at least in part upon a connect state of call segments associated with particular applications of said plurality of applications.

57. The system of claim 23, wherein said call segment controller directs said call to a particular application of said plurality of applications for a first call segment and directs said call to said particular application of said plurality of applications for a second call segment.

58. The system of claim 57, wherein said first and second call segments are separated by a third call segment in which said call is directed to an application of said plurality of applications different than said particular application.

59. The system of claim 57, wherein said particular application comprises a voice response unit to interact with a caller of said call.

60. The system of claim 57, wherein said particular application comprises a call accounting application.

61. A method of controlling a call in segments, said method comprising:
providing a call segment controller having initial call segment directing information associated therewith;

directing a call to a port associated with said call segment controller, wherein said directing said call comprises providing call information associated with said call to said call segment controller;

providing, by said call segment controller, call control signaling as a function of said initial call segment directing information and said call information provided to said call segment controller, wherein said call control signaling directs said call to a first application; and

monitoring, by said call segment controller, a state of said call with respect to said first application.

62. The method of claim 61, further comprising:

providing loop-back of a voice information aspect of said call with respect to said port associated with said call segment controller, wherein said call segment controller is provided said call information associated with said call without voice information associated with said call.

63. The method of claim 62, wherein said control signaling is provided with respect to a port associated with said voice information loop-back.

64. The method of claim 61, further comprising:

providing, by said call segment controller, information associated with said call to said first application.

65. The method of claim 64, wherein said information associated with said call provided by said call segment controller to said first application comprises call reference information.

66. The method of claim 64, further comprising:

providing, by said first application, information associated with said call to said call segment controller.

67. The method of claim 66, wherein said information associated with said call provided by said first application to said call segment controller comprises call reference information.

68. The method of claim 66, wherein said information associated with said call provided by said first application to said call segment controller comprises information with respect to further directing of said call by said call segment controller.

69. The method of claim 68, further comprising:
soliciting, by said first application, information with respect to an enhanced service desired by a caller associated with said call.

70. The method of claim 68, further comprising:
providing, by said call segment controller, additional call control signaling as a function of said information associated with said call provided by said first application to said call segment controller, wherein said additional call control signaling directs said call to a second application.

71. The method of claim 70, further comprising:
providing, by said call segment controller, further call control signaling to direct said call to a third application.

72. The method of claim 71, further comprising:
providing, by said second application, information associated with said call to said call segment controller, wherein said further call control signaling is provided as a function of said information associated with said call provided to said call segment controller by said second application.

73. The method of claim 70, further comprising:
providing, by said call segment controller, further call control signaling to again direct said call to said first application.

74. The method of claim 73, further comprising:

monitoring, by said call segment controller, a state of said call with respect to said second application, wherein said further call control signaling is provided as a function of a state of said call with respect to said second application monitored by said call segment controller.

75. The method of claim 61, wherein said state of said call monitored by said call segment controller comprises a connect state of said call.

76. The method of claim 61, wherein said state of said call monitored by said call segment controller comprises a release state of said call.

77. The method of claim 61, further comprising:

altering said initial call segment directing information to result in initially directing said call to said first application rather than another application of a plurality of applications.

78. The method of claim 77, wherein said altering said initial call segment directing information provides directing of said call and a plurality of other calls without dropping said calls.

79. The method of claim 77, wherein said first application comprises a replacement application with respect to said other application.